

219307US2PCT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF: :
HARALD C. SNORRE et al. :
SERIAL NO: 10/049,291 : ATTN: APPLICATION BRANCH
FILED: February 11, 2002 :
FOR: ELECTROMAGNETIC SIMULATION
ALGORITHM, IN PARTICULAR FOR
THE PERFORMANCE OF AN ANTENNA

PRELIMINARY AMENDMENT

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

Prior to a first examination on the merits, please amend the above-identified application as follows:

IN THE CLAIMS

Please amend the claims to read as follows:¹

3. (Amended) The electromagnetic simulation algorithm as claimed in claim 1, characterized in that the preconditioner Z is determined implicitly.

4. (Amended) The electromagnetic simulation algorithm as claimed in claim 1, characterized in that the preconditioner Z is defined by the following relation:

$$Z = 'JMJ$$

where J is a matrix formulation of the operator **J**, and 'J the transposed matrix of J.

¹A marked-up copy of the amendment is attached hereto.

REMARKS

The present preliminary amendment is submitted to place the above-identified application in more proper format under United States practice.

A new Abstract believed to be in more proper format under United States practice is also submitted herein.

The present application is believed to be in condition for a full and thorough examination on the merits. An early and favorable consideration of the present application is hereby respectfully requested.

Respectfully submitted,

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IN THE CLAIMS

Please amend the claims as follows:

--3. (Amended) The electromagnetic simulation algorithm as claimed in [one of the preceding claims] claim 1, characterized in that the preconditioner Z is determined implicitly,

4. (Amended) The electromagnetic simulation algorithm as claimed in [one of the preceding claims] claim 1, characterized in that the preconditioner Z is defined by the following relation:

$$Z = 'JMJ$$

where J is a matrix formulation of the operator **J**, and 'J the transposed matrix of J.

6. (Amended) The electromagnetic simulation algorithm as claimed in [one of the preceding claims] claim 1, characterized in that the iterative algorithm used is a fast algorithm, of the multilevel multipole method type.

7. (Amended) The electromagnetic simulation algorithm according to [one of claims 1 to 5] claim 1, characterized in that the iterative algorithm used is a fast algorithm, of the adaptive integral method [method] type.

8. (Amended) The electromagnetic simulation algorithm as claimed in [one of the preceding claims] claim 1, characterized in that the body is an antenna for which one seeks to determine an optimal shape, by using the simulation algorithm in an antenna design tool.

9. (Amended) The electromagnetic simulation algorithm as claimed in [one of claims 1 to 7] claim 1, characterized in that the body is an object of known shape for which one seeks to determine the radar cross section (RCS).--

IN THE ABSTRACT

(New).